

Halobates. The insect, of which Dr. Léon had only a single specimen, is 4 mm. long. Its mouth "is constructed exactly like that of the Hemiptera," it has typical hemipteran antennae, a pair of prominent compound eyes, three stemmata, and the head is not freely attached to the thorax. The wings, of which only the mesothoracic pair is present, appear to be hyaline, with a venation which by no stretch of the imagination can be regarded as dipteran. The legs are hairy and adapted to swimming; there are three tarsal joints, the last of which terminates in a single claw. When we come to look for dipteran characters the only one that can be found is the lack of metathoracic wings; as if this character were sufficient to elevate a hemipter to the rank of a dipter! Has Dr. Léon ever heard of the two-winged male Coccidae, which no tyro in entomology would think of placing among the Diptera? The stemmata furnish Dr. Léon with another reason for regarding his insect as allied to the Diptera, because, forsooth, the *Hydrocorisa* have no stemmata! We are informed that at the very beginning of his examination of this insect, Dr. Léon saw that he was not dealing with a Halobates but with a form which resembles a dipter more than a hemipter. He further states that Dr. Arnold Lang, to whom he communicated his observations was of the same opinion. We cannot believe that so eminent a phylogenist as Dr. Lang could have examined the specimen. The insect is not a hemidipter but a genuine hemipter albeit with only one pair of wings. It will hardly be necessary to study its ontogeny for the sake of ascertaining that it does not hatch as a maggot and does not pass through a quiescent pupa stage. W. M. WHEELER.

PROTECTION BY CONSPICUOUS COLORS.—The following passages in Lord Walsingham's last presidential address to the Entomological Society of London are suggestive:—

"My attention was lately drawn to a passage in Herbert Spencer's 'Essay on the

Morals of Trade.' He writes:—'As when tasting different foods or wines the palate is disabled by something strongly flavoured from appreciating the more delicate flavour of another thing afterwards taken, so with the other organs of sense, a temporary disability follows an excessive stimulation. This holds not only with the eyes in judging of colours, but also with the fingers in judging of textures.'"

"Here, I think, we have an explanation of the principle on which protection is undoubtedly afforded to certain insects by the possession of bright colouring on such parts of their wings or bodies as can be instantly covered and concealed at will. It is an undoubted fact, and one which must have been observed by nearly all collectors of insects abroad, and perhaps also in our own country, that it is more easy to follow with the eye the rapid movements of a more conspicuous insect soberly and uniformly coloured than those of an insect capable of changing in an instant the appearance it presents. The eye, having once fixed itself upon an object of a certain form and colour, conveys to the mind a corresponding impression, and if that impression is suddenly found to be unreliable the instruction which the mind conveys to the eye becomes also unreliable, and the rapidity with which the impression and consequent instruction can be changed will not always compete successfully with the rapid transformation effected by the insect in its efforts to escape. . . .

"If this protective effect of the partial and intermittent display of brilliant colouring is so obvious in relation to the human eye, must it not be at least equally so in relation to the eyes of its more natural enemies, such as birds, and have we not here indicated a new and distinct line of investigation as regards the use and advantage of brilliant colours in many cases which cannot be accounted for by the theory that they are developed for the purpose of warning, or through their aesthetic relation to courtship?"